

State of New Hampshire DEPARTMENT OF ENVIRONMENTAL SERVICES

6 Hazen Drive, P.O. Box 95, Concord, NH 03302-0095 (603) 271-3406 FAX (603) 271-7894



April 10, 2002 Letter of Deficiency DAM #256.08

Mrs. Gertrude Linton C/o Mr. William Beckett P.O. Box 1090 Exeter, NH 03833

RE: Moekel Pond Dam, Windham

Dear Mrs. Linton

The Department of Environmental Services, Dam Bureau (DES) consistently strives to enhance the safety of dams in New Hampshire through its dam safety program. One of the many instruments that plays a part in reaching this goal is our inspection program. DES is forwarding this correspondence to you to advise you that in accordance with RSA 482:12 and Env-Wr 502.02, an inspection of the subject dam was conducted on May 17, 2001 and March 29, 2002. During this visual inspection and/or file review, the following deficiencies were observed:

The dam cannot pass the routed 50-year storm event without overtopping the dam;

- 2. There was leakage noted at the base of the dam, viewed inside the gate/turbine house;
- 3 There was evidence of erosion on the left abutment of the dam from past overtopping events;
- 4. Cracking was noted along the upstream concrete face of the dam, right end;
- 5. Deterioration in the gunite coating on the spillway sluiceway was noted;
- 6 There was apparent leakage through the left abutment of the dam, through an area of cracked gunite coating in the left wall of the stoplog bay;
- 7. The gunite coating on both walls of the left stoplog bay were badly cracked allowing the migration of water through the original masonry walls;
- 8. There was a transverse crack, approximately ¼ wide, in the upstream left concrete abutment wall;
- 9. There were trees and brush within 10 feet of the downstream toe of the right masonry wall,
- 10. Seepage noted in past inspections at the base of the spillways was not noted due to high water; and

There is no operation and maintenance plan on file with the DES.

http://www.state.nh.us TDD Access: Relay NH 1-800-735-2964

Letter of Deficiency Dam #256.08 April 10, 2002 pg. 2

DES believes that the above deficiencies can be corrected by performing the following items by the indicated schedule:

May 6, 2002:

- 1. Submit a draft operation and maintenance plan. Address how the recommended DES normal pool elevation of 1.5' below the top of the dam will be maintained. Refer to the enclosed guidelines;
- 2. Remove trees and brush within 10 feet of the downstream toe of the right masonry wall;
- 3 Repair damage from erosion along the left abutment. Place erosion resistant material along the left abutment of the dam;

November 4, 2002:

- 4. Conduct a deep drawdown of the pond to inspect the upstream concrete face in the vicinity of the old gate and turbine. Perform concrete repairs, as noted in items 5-9 below, at this time;
 - Seal cracks and holes in gunite coating on the spillway sluiceway;
- 6. Repair the area of cracked gunite coating in the left wall of the stoplog bay where leakage through the left abutment of the dam is occurring;
- 7 Repair the gunite coating on both walls of the left stoplog bay that were badly cracked allowing the migration of water through the original masonry walls;
- 8 Repair the transverse crack, approximately 1/4 wide, in the upstream left concrete abutment wall;
- 9. Perform concrete repairs to the upstream face of the dam, right end of concrete cutoff wall; and
- 10. Consider removal of the gate/turbine house and render the outlet operable to increase discharge capacity.

DES is requesting that you complete and submit the attached "Intent to Complete Repairs" form, within 30 days of receipt of this letter, that will provide for correction of the identified deficiencies by the date(s) indicated above. If you believe changes to the items of work or dates are necessary, please make the changes directly on the form and provide a brief explanation. We have enclosed a self addressed stamped envelope for you to return this form.

Our intent in sending you this correspondence is to make you aware of items that DES believes warrant your attention to insure the continued safe operation of your dam. It is our hope that, through the submittal of the attached form and a commitment to keeping a well-maintained dam, you will voluntarily comply with the requested items of work. If we do not receive the intent form or a similarly adequate written reply, we will assume that you are in agreement with our findings and recommendations and DES will carry out follow-up inspections accordingly.



Letter of Deficiency Dam #256.08 April 10, 2002 Pg. 3

If you have any questions or comments regarding this Letter of Deficiency or would like to be present at future inspections, please contact me at 271-3406, or write to the Water Division at the address listed on the top of the previous page.

Grace E. Levergood, P. Dam Safety Engineer